

ELECTRONICS TECHNICIAN

General Statement of Duties: Performs highly skilled technical work in the installation, operation, maintenance and repair of electronic microprocessor based equipment. Does related work as required.

Distinguishing Features of the Class: Employees in this class must be able to install, operate, maintain, and repair electronic microprocessor based equipment. The particular type of equipment involved will be dependent on the division to which the employee is assigned. Employees will receive only general supervision and must be highly self-motivated and capable of performing competent, accurate work.

Examples of Work: (Illustrative only. Actual duties performed will depend of the division to which the employee is assigned.)

- Maintains the database of the System's Local Area Network (LAN), making additions and deletions as needed or directed by the Superintendent;
- Maintains the data collection system, periodically calibrating and checking all relevant -sensors to insure accuracy;
- Maintains process control loops and instrumentation systems, recommending contract work when necessary;
- Maintains a replacement parts inventory;
- Selects and installs replacements and additions to site process control equipment;
- Repairs and maintains digital and electro-mechanical traffic signal control devices;
- Fabricates and repairs printed circuit boards;
- Makes minor electronic equipment designs;
- Designs and fabricates lab test equipment;
- Does EPROM and EEPROM programming;
- Assists in signal system and electronic designs;
- Works with computer operating systems, languages, and minor programming;
- Informs staff and Superintendent of operational or maintenance problems and recommends solution;
- Assists in training of staff;
- Maintains required records;
- Performs related duties as required.

Required Knowledge, Skills, and Abilities: Comprehensive knowledge of the standard practices, tools, test equipment and terminology of electronics; a working knowledge of microprocessors, process control equipment, sensors, transmission systems, communication systems, instrument control systems, transmitters, recorders, timer, ladder logic control systems as related to programmable logic controllers, and power controlling solid state equipment. Must be familiar with PC computers and current operating systems. Must be familiar with PROM's uploading and downloading of software, and using/programming dial up modems. Must have the ability to work from plans, blueprints, manual, and diagrams; a good mechanical aptitude, good

physical condition; ability to learn new electronic systems and equipment quickly, ability to do small drafting projects, ability to comprehend and carry out job duties. Must have the ability to effectively communicate with people. Must have ability to make emergency repairs of traffic signals and related equipment. Must be able to bend, twist and reach overhead to install or repair equipment. Must be able to lift up to 50 lbs, operate bucket truck, climb ladder or into bucket truck as needed.

Acceptable Experience and Training: A minimum of a two year degree in electronics from an accredited technical institute or an approved equivalent of military training or other specialized electronic training. Must have a valid Iowa driver's license.